

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference CMRN : 0050PCT	FOR FURTHER ACTION see Form PCT/ISA/220 as well as, where applicable, Item 5 below.	
International application No. PCT/US2007/084879	International filing date (day/month/year) 15/11/2007	(Earliest) Priority Date (day/month/year) 18/12/2006
Applicant CAMERON INTERNATIONAL CORPORATION		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International search report consists of a total of 4 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

a. With regard to the **language**, the International search was carried out on the basis of:

- ☒ the International application in the language in which it was filed
☐ a translation of the International application into _____, which is the language of a translation furnished for the purposes of International search (Rules 12.3(a) and 23.1(b))

- b. ☐ This International search report has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43.6b/s(a)).
- c. ☐ With regard to any **nucleotide and/or amino acid sequence** disclosed in the International application, see Box No. I.

2. ☐ **Certain claims were found unsearchable** (See Box No. II)

3. ☐ **Unity of invention is lacking** (see Box No. III)

4. With regard to the **title**,

- ☒ the text is approved as submitted by the applicant
☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

- ☒ the text is approved as submitted by the applicant
☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this International search report, submit comments to this Authority

6. With regard to the **drawings**,

- a. the **figure of the drawings** to be published with the abstract is Figure No. 4
☒ as suggested by the applicant
☐ as selected by this Authority, because the applicant failed to suggest a figure
☐ as selected by this Authority, because this figure better characterizes the invention
- b. ☐ none of the figures is to be published with the abstract

INT. NATIONAL SEARCH REPORT

International application No
PCT/US2007/084879

A. CLASSIFICATION OF SUBJECT MATTER INV. E21B33/035 E21B33/038 E21B43/36		
According to International Patent Classification (IPC) or to both national classification and IPC		
B. FIELDS SEARCHED Minimum documentation searched (classification system followed by classification symbols) E21B		
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched		
Electronic data base consulted during the international search (name of data base and, where practical, search terms used) EPO-Internal		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 2005/083228 A (ENHANCED RECOVERY LTD DES [GB]; DONALD IAN [GB]; REID JOHN [GB]; CRAWF) 9 September 2005 (2005-09-09) claims 1,24,25,28,30,31; figures 4-10,14,16 -----	1-25
X	WO 03/078793 A (ABB OFFSHORE SYSTEMS AS [NO]; OESTERGAARD INGE [NO]) 25 September 2003 (2003-09-25) page 3, line 4 - line 12; figures 1-3,22 page 3, line 21 - line 28 page 5, line 21 - line 24 page 10, line 21 - line 27 page 11, line 28 - line 31 page 18, line 26 - line 32 ----- <div style="text-align: right;">-/--</div>	1-13, 20-25
<div style="display: flex; justify-content: space-between;"> <input checked="" type="checkbox"/> Further documents are listed in the continuation of Box C. <input checked="" type="checkbox"/> See patent family annex. </div>		
* Special categories of cited documents : <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>*A* document defining the general state of the art which is not considered to be of particular relevance</p> <p>*E* earlier document but published on or after the international filing date</p> <p>*L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)</p> <p>*O* document referring to an oral disclosure, use, exhibition or other means</p> <p>*P* document published prior to the international filing date but later than the priority date claimed</p> </div> <div style="width: 45%;"> <p>*I* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention</p> <p>*X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone</p> <p>*Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.</p> <p>*Z* document member of the same patent family</p> </div> </div>		
Date of the actual completion of the international search <div style="text-align: center;">6 June 2008</div>		Date of mailing of the international search report <div style="text-align: center;">13/06/2008</div>
Name and mailing address of the ISA/ European Patent Office, P.B. 5818 Patentlaan 2 NL - 2200 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016		Authorized officer <div style="text-align: center; margin-top: 20px;">Dantinne, Patrick</div>

INT. NATIONAL SEARCH REPORT

International application No

PCT/US2007/084879

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 00/47864 A (FMC CORP [US]; ANDERSEN TORE [NO]; BREDA JOEREN [NO]; GATHERAR NICHOLA) 17 August 2000 (2000-08-17) page 4, line 6 - line 24 page 5, line 29 - page 6, line 9 page 13, line 23 - line 31; figures 3,4 figures 25-35 -----	1-13, 20-25
X	WO 03/033868 A (ALPHA THAMES LTD [GB]; APPLEFORD DAVID ERIC [GB]; LANE BRIAN WILLIAM []) 24 April 2003 (2003-04-24) claims 1,4,5; figures 1,2,4 -----	1-12, 20-25
A	WO 2005/047646 A (ENHANCED RECOVERY LTD DES [GB]; DONALD IAN [GB]; REID JOHN [GB]) 26 May 2005 (2005-05-26) cited in the application abstract -----	14,15

IN1 NATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/US2007/084879

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 2005083228	A	09-09-2005	AU 2005216412 A1	09-09-2005
			BR P10508049 A	17-07-2007
			CA 2555403 A1	09-09-2005
			EP 1721058 A1	15-11-2006
WO 03078793	A	25-09-2003	AU 2003206458 A1	29-09-2003
			GB 2402687 A	15-12-2004
			NO 20020989 A	29-08-2003
			US 2005173322 A1	11-08-2005
WO 0047864	A	17-08-2000	AU 2453300 A	29-08-2000
			BR 0009965 A	26-03-2002
			CA 2362810 A1	17-08-2000
			EP 1151178 A1	07-11-2001
WO 03033868	A	24-04-2003	AT 326611 T	15-06-2006
			BR 0213625 A	14-09-2004
			EP 1444415 A1	11-08-2004
			NO 20041929 A	11-05-2004
			US 2004251030 A1	16-12-2004
WO 2005047646	A	26-05-2005	AU 2004289864 A1	26-05-2005
			CA 2526714 A1	26-05-2005

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To:

see form PCT/ISA/220

PCT

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43bis.1)

Date of mailing
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference
see form PCT/ISA/220

FOR FURTHER ACTION
See paragraph 2 below

International application No.
PCT/US2007/084879

International filing date (day/month/year)
15.11.2007

Priority date (day/month/year)
18.12.2006

International Patent Classification (IPC) or both national classification and IPC
INV. E21B33/035 E21B33/038 E21B43/36

Applicant
CAMERON INTERNATIONAL CORPORATION

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 56.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220:

Name and mailing address of the ISA:



European Patent Office - P.B. 5818 Patentlaan 2
NL-2280 HV Rijswijk - Pays Bas
Tel. +31 70 340 - 2040 Tx: 31 651 epo nl
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Date of completion of
this opinion

see form
PCT/ISA/210

Authorized Officer

Dantine, Patrick

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**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/US2007/084879

Box No. I Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of:
 - ☒ the international application in the language in which it was filed
 - ☐ a translation of the International application into , which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1 (b)).
2. ☐ This opinion has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43bis.1(a)).
3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material:
 - ☐ a sequence listing
 - ☐ table(s) related to the sequence listing
 - b. format of material:
 - ☐ on paper
 - ☐ in electronic form
 - c. time of filing/furnishing:
 - ☐ contained in the international application as filed.
 - ☐ filed together with the International application in electronic form.
 - ☐ furnished subsequently to this Authority for the purposes of search.
4. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
5. Additional comments:

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/US2007/084879

Box No. V Reasoned statement under Rule 43b/s.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	
	No: Claims	<u>1-25</u>
Inventive step (IS)	Yes: Claims	
	No: Claims	<u>1-25</u>
Industrial applicability (IA)	Yes: Claims	<u>1-25</u>
	No: Claims	

2. Citations and explanations

see separate sheet

Re Item V.

1 Reference is made to the following documents:

- D1: WO 2005/083228 A (ENHANCED RECOVERY LTD DES [GB]; DONALD IAN [GB]; REID JOHN [GB]; CRAWF) 9 September 2005
- D2: WO 03/078793 A (ABB OFFSHORE SYSTEMS AS [NO]; OESTERGAARD INGE [NO]) 25 September 2003
- D3: WO 00/47864 A (FMC CORP [US]; ANDERSEN TORE [NO]; BRED A JOEREN [NO]; GATHERAR NICHOLA) 17 August 2000
- D4: WO 03/033868 A (ALPHA THAMES LTD [GB]; APPLEFORD DAVID ERIC [GB]; LANE BRIAN WILLIAM) 24 April 2003
- D5: WO 2005/047646 A (ENHANCED RECOVERY LTD DES [GB]; DONALD IAN [GB]; REID JOHN [GB]) 26 May 2005 cited in the application

2 INDEPENDENT CLAIM 1

- 2.1 The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claim 1 is not new in the sense of Article 33(2) PCT.

Document D1 discloses (the references in parentheses applying to this document):

A system, comprising:

a first module (see fig. 8) configured to process fluid from a well, wherein the first module comprises:

a processing device (99) coupleable to a manifold;

a first access tunnel (109) extending through the processing device, wherein the access tunnel is configured to provide access to the manifold; (see fig. 6)

a processing input; and

a processing output.(see fig. 15)

- 2.2 Documents D2-D4 also disclose all technical features of claim 1.

3 DEPENDENT CLAIMS 2-13, 16-19, 21, 22, 24, 25

Dependent claims 2-13, 16-19, 21, 22, 24, 25 do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of novelty and/or inventive step (Article 33(2) and (3) PCT), see the documents D1-D5 and the corresponding passages cited in the ISR.

4 Independent claims 14, 15, 20 and 23: lack of clarity of the claims as a whole arises, since the plurality of independent claims makes it difficult, if not impossible, to determine the matter for which protection is sought, and places an undue burden on others seeking to establish the extent of the protection.